

PRE-OPERATIVE FOCUSED TRANSTHORACIC ECHOCARDIOGRAPHY FOR PREDICTION OF POST-OPERATIVE CARDIAC COMPLICATIONS

Study Protocol

All patients were first assessed in the anesthesia clinic of Qena university hospital by clinical examination and routine investigations regarding Detailed History taking including: Age, Sex, Work, Address, previous Operations ,Smoking, Diabetes, Past history and Family history, Clinical Examination of the chest and heart all patients were investigated for complete blood picture, prothrombin concentration and time ,INR ,ECG

According to the surgery plan the responsible anesthesiologist was asked to write his anesthetic management protocol of the patient in special sheet then TTE (Vivid I echocardiography machine General Electric Healthcare, Milwaukee, WI, USA) with

a 3S-RS (1.5–3.6 MHz) transthoracic probe). was done by professional anesthesiologist following the :Hemodynamic Echocardiography Assessment in Real Time (HEART) protocol.

According to the clinical findings of TTE patients may be either free or have one or more of the following haemodynamic states normal, empty, vasodilated ,left ventricular systolic or diastolic failure, left ventricular systolic and diastolic failure, and right ventricular failure, valve stenosis or regurgitation of at least moderate severity, A pericardial effusion greater than 0.5 cm; or pulmonary hypertension (estimated pulmonary artery systolic pressure > 60 mmHg). Non-hemodynamically significant findings on clinical or TTE examination included mild valvular stenosis or regurgitation, and normal haemodynamic state.

According to the data found by TEE examination the anesthesia plan was re- discussed with the attending anesthesiologist to be compared with the one put in the anesthesia clinic before TEE was performed to record any change in that plan of anesthesia. All modifications of anesthetic

management as well as any intra-operative hemodynamic changes were recorded for further analysis.

Statistical Analysis Plan

The required sample size was calculated using Epi Info software version 7 (CDC, 2012) ®. Using post hoc power analysis with accuracy mode calculations with VAS as the primary objective and therefore, it was estimated that minimum sample size of 29 patients in each study group would achieve a power of 80% to detect an effect size of 0.8 in the outcome measures of interest, assuming a type I error of 0.05.

Results: our results showed changes in clinical diagnosis in the form of reporting 26% of patients with impaired ejection fraction of left ventricle, 18% valve lesions, diastolic dysfunction in 40 % of patients. Accordingly 4% of patients were canceled and the anesthetic management was changed in 20% of patients

All analyses were performed with the SPSS 20.0 ® software. Categorical variables were described by number and percent (N, %), where continuous variables described by mean and standard deviation (Mean, SD). And Mann–Whitney test were used to compare between two groups while Chi square test was used for qualitative data. Where compare between continuous variables by t-test. P was considered significant if $< .05$ at confidence interval 95%.